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David R Moorman
Signature

December 19, 2007
Date of Signature

Re:	Application of:	Zver et al.
	Serial No.:	10/743,339
	Filed:	December 22, 2003
	For:	Automated Bypass Method and Apparatus
	Group Art Unit:	2836
	Confirmation No.:	4710
	Examiner:	Dru M. Parries
	Our Docket No.:	2002P20644US01 (1867-0044)

TRANSMITTAL OF BRIEF ON APPEAL

Please find for filing in connection with the above patent application the following documents:

1. Original of the Appeal Brief;

2. Check in the amount of $510.00; and

3. One (1) return post card.

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Respectfully Submitted,

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December 19, 2007

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Enclosures

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APPEAL BRIEF

Sir:

This is an appeal under 37 CFR § 41.31 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the rejection of claims 1-20 of the above-identified patent application. Claims 1-20 have been finally rejected in an office action dated May 11, 2007. A check in the amount of **$510.00** is enclosed herewith. Also, please provide any extension of time which may be necessary and charge any fees which may be due to Deposit Account No. 13-0014, but not to include any payment of issue fees.

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(1) REAL PARTY IN INTEREST

Siemens Building Technologies, Inc. is the assignee of this patent application, and therefore the real party in interest.

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences in this case.

(3) STATUS OF CLAIMS

Claims 1-20 are pending in the application.

Claims 1-20 stand rejected and form the subject matter of this appeal. Claims 1-20 are shown in the Appendix attached to this Appeal Brief.

(4) STATUS OF AMENDMENTS

Applicants filed a Response to Office Action dated February 16, 2007 ("First Response") responsive to an Office Action dated November 16, 2006. A Final Office Action dated May 11, 2007 was designated by the Examiner to be responsive to the First Response. On October 11, 2007, Applicants filed a Request for Pre-Appeal Brief Review ("Pre-Appeal Brief") that was responsive to the final Office Action. The Examiner thereafter issued Notice of Panel Decision from Pre-Appeal Brief Review dated November 19, 2007 ("Notice of Panel Decision") responsive to the Pre-Appeal Brief.

(5) SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 is directed to an arrangement for use in providing power to an electrical device. With reference to the non-limiting exemplary embodiment of Fig.1, the arrangement of claim 1 includes:

an inverter 20 (See, e.g., Published Specification, at [0019-0021, 0024, 0030-0035]) that generates an inverter ouput (*Id.*, at [0030]);

a first switch 22 (*Id.* at [0019 and 0022-0035]) having an open position (See Published Specification, at [0022]) and a closed position (*Id.*), the first switch operably coupled to connect the inverter to the electrical device when the first switch is in the closed position (*Id.*, at [0024]);

a second switch 24 (*Id.* at [0019 and 0025-0035]) having an open position (See *Id.*, at [0025]) and a closed position (*Id.*), the second switch operably coupled to connect a utility power line source to the electrical device when the second switch is in the closed position (*Id.*); and

a bypass controller 26 (See, e.g., Published Specification, at [0019, and 0025-0035]) operable to cause a first transition sequence in which the first switch changes to the open position and subsequently the second switch changes to the closed position (See, e.g., Published Specification, at [0027), the bypass controller further operable to:

cause continuous actuation of a first indicator when the first switch is in the closed position (*Id.* at [0028]);

cause continuous actuation of a second indicator when the second switch is in the closed position (*Id.*); and

cause intermittent actuation of the second indicator during at least a portion of the first transition sequence (*Id.* at [0028]).

Dependent claim 7 depends from claim 1 and discloses that the inverter as described in claim 1 may be a variable frequency drive (*Id.* at [0020]).

The use of continuously and intermittently actuated indicators allows for, among other things, a relatively accurate indication of the current state of inverter bypass operations, i.e. whether utility or inverter power is being supplied to the electronic device, as well as an indication of a transition between utility and inverter power which can occur without operator intervention. In addition, the same indicators are used for continuous and intermittent actuation; thus, fewer indicators may be required which is cost effective.

Independent claim 10 is directed to an embodiment of an arrangement for providing a visible display corresponding to the operation of a system for providing alternative sources of power to an electrical device. The arrangement of claim 10 has a plurality of states including a utility power bypass state and an inverter power state (See, e.g., Published Specification, at [0036]). The arrangement of claim 10 also includes a plurality of indicators (e.g. indicators 28 and 30 of Fig. 1, and see Published Specification, at [0036]) and a processing circuit (e.g. bypass controller 26 of Fig. 1, and see, e.g., Published Specification, at [0019, and 0025-0035]) the processing circuit operable to:

cause a first visible configuration of the plurality of indicators when the arrangement is in the inverter power state (See, e.g., Published Specification, at [0028] describing a continuous actuation of a first indicator 28);

cause a second visible configuration of the plurality of indicators when the arrangement is in the utility power bypass state(*Id.* describing a continuous actuation of a second indicator 30);

cause a third visible configuration of the plurality of indicators when the arrangement at least a portion of the time when the arrangement is in transition between the inverter power state and the utility power bypass state(*Id.* describing intermittent actuation of the second indicator 30).

Independent claim 17 is directed to an embodiment of a bypass circuit for use in an arrangement for use in providing power to an electrical device. With reference to the non-limiting exemplary embodiment of Fig.1, the arrangement of claim 17 includes an inverter 20 (See Published Specification, at [0019-0021, 0024, 0030-0035]) that generates an inverter ouput (*Id.*, at [0030]). The exemplary bypass circuit of claim 17 includes:

a first switch 22 (*Id.* at [0019 and 0022-0035]) having an open position (See Published Specification, at [0022]) and a closed position (*Id.*), the first switch operably coupled to connect the inverter to the electrical device when the first switch is in the closed position (*Id.*, at [0024]);

a second switch 24 (*Id.* at [0019 and 0025-0035]) having an open position (See *Id.*, at [0025]) and a closed position (*Id.*), the second switch operably coupled to connect a utility power line source to the electrical device when the second switch is in the closed position (*Id.*); and

a processing circuit (bypass controller 26 of Fig. 1, and see Published Specification, at [0019, and 0025-0035]) operable to cause a first transition sequence in which the first switch changes to the open position and subsequently the second switch changes to the closed position (See Published Specification, at [0027), the bypass controller further operable

to provide a signal to the inverter to cause the inverter to cease providing output prior to first switch changing to the open position (*Id.* at [0033]).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-20 are unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,292,379 to Edevold et al. ("Edevold") in view of U.S. Patent No. 6,923,285 to Rossow et al. ("Rossow"). The claims do not stand or fall together.

(7) ARGUMENT

A. The Obviousness Rejection of Claims 1-20 Is in Error

1. Claims 1-9

Claims 1-9 were rejected as being obvious over Edevold in view Rossow. For the reasons discussed below, a *prima facie* case of obviousness has not been established with respect to independent claim 1 and dependent claims 2-9.

a. The Combination Fails to Disclose Each and Every Element of Claim 1

Applicants respectfully submit that neither Edevold nor Rossow teach, show or suggest the claim 1 limitation of "caus[ing] intermittent actuation of the second indicator during at least a portion of the first transition sequence." In the Final Office Action, Edevold was cited as teaching all of the limitations of claim 1 except for the teaching of indicators and indicia when the arrangement is in certain operating modes. Specifically, the Examiner admitted that Edevold failed to teach, show or suggest "caus[ing] intermittent actuation of the second indicator during at least a portion of the first transition sequence." (See Final Office

Action, page 5). To supply the teaching of indicators and indicia, the Examiner cited Rossow stating:

> Rossow teaches LED indicators and indicia (Fig. 3b) for indicating operating modes in a power system. He goes on to teach certain LEDs being illuminated when certain switches are closed (certain operating modes) (Col. 12, lines 26-38). It would have been obvious ... to use LEDs and indication in Edevold's invention so that the operator will know the operating mode in which the system is working in. Therefore, when the first switch is closed (i.e. in inverter power state), an LED is continuously lit with matching indicia; same with when the second switch is closed (i.e. in utility power bypass states). During transition mode, the first LED will be on, and then turn off (when the first switch is opened), and the second LED will be off, and then turn on (when the second switch is closed) (intermittently).

(*Id.*)

In the Final Office Action, the Examiner stated that the modification of Edevold with Rossow inherently teaches indicating the transition sequence between states and that intermittent actuation of the second indicator during at least a portion of the transition sequence. (*Id.*) However, Applicant submits that the Examiner has not provided rationale or evidence that shows inherency. (MPEP § 2112(IV)).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). In *Robertson*, the claims were drawn to a disposable diaper having three fastening elements. The prior art reference disclosed two fastening elements that could perform the

same function as the three fastening elements in the claims. The court construed the claims to require three separate elements and held that the reference did not disclose a separate third fastening element, either expressly or inherently.

Applying Robertson to the present case, while Rossow has been cited to provide the teaching of indicators, no rationale or evidence has been provided to show why or how it is inherent from the combination of Edevold and Rossow to indicate a transition sequence between states and inherent to intermittently actuate the second indicator during at least a portion of the transition sequence. There is no teaching, suggestion or motivation to be found in either Edevold or Rossow of why it would be desirable to indicate a transition between operating states. Similarly, even though Rossow discloses the use of indicators, there is no hint or suggestion of using continuous actuation of an indicator to indicate a state and intermittent actuation of the same indicator to indicate a transition to or from the state.

Because the claim 1 limitation of "caus[ing] intermittent actuation of the second indicator during at least a portion of the first transition sequence" is not inherent from the combination of Edevold and Rossow, it is respectfully submitted that the combination of Edevold and Rossow fails to disclose the limitation. Accordingly, it is respectfully submitted that a *prima facie* case of obviousness with respect to claim 1 has not been established because the combination of Edevold and Rossow fails to disclose each and every limitation of claim 1.

b. Non-Analogous Art

Even if the combination of Edevold and Rossow is considered to inherently teach the limitation of "caus[ing] intermittent actuation of the second indicator during at least a portion

of the first transition sequence," which it does not, Edevold and Rossow are improperly combined because Edevold and Rossow are non-analogous art. Rossow is not in the field of either Edevold's or the Applicant's field of endeavor. Moreover, Rossow is not particularly pertinent to the problem of "user interfaces", if any, faced by Edevold.

Edevold is directed to uninterruptible power supplies (UPS). These devices generate AC power signals in the event of a power interruption to the utility power lines. UPS devices are often used to ensure continuous operation of critical processing devices, such as hospital equipment, and other data processing equipment. A UPS device typically includes basic functions such as 1) detecting a 60Hz utility power line signal anomaly; 2) switching to battery power and 3) providing battery power until utility power is again available. A UPS may provide surge protection as well. There is little or no user interaction with a UPS during its normal operation.

Rossow, by contrast, is directed to an attachment for a power machine. A "power machine" is a device that may include, for example, a fork-lift. In Rossow, the power machine is a "skid steer loader". (Rossow at col. 1, lines 24-25). The "attachment" to the power machine is a "tool", such as a tree spade, cement mixer, etc. which uses hydraulic actuators. The rudimentary interface of Rossow relates to indicating whether "auxiliary hydraulics" of a skid steel loader are activated, or whether "traction lock override" is activated. These indications have nothing to do with UPS devices, nor inverters.

Rossow is not even vaguely related to "the particular problem with which the applicant is concerned." Rossow is directed to a control attachment for hydraulic type machines. Nevertheless, the Examiner alleges that "Rossow is particularly pertinent to the problem of "user interfaces." (Final Office Action, at page 2). Applicants respectfully

disagree. Rossow does not purport to teach innovative user interfaces for general applicability, nor do the user interfaces discussed in Rossow appear to have widespread applicability. In particular, the only user interfaces shown in Rossow are in Figs. 3A, 3B and 6. None of these user interfaces have the slightest amount of general applicability outside of hydraulic lift machines. There is simply no sufficient evidence that one would consider switches and indicators specifically configured for a lift-loader to be "reasonably pertinent" to the user interface needs of UPS devices. The Edevold and Rossow patents are directed to completely different devices used in completely different industries, and implement completely different technologies.

Therefore, because Rossow and Edevold are not analogous art, it is respectfully submitted that the obviousness rejection of claim 1 is improper under MPEP 2141.01(a) and should be withdrawn.

c. Conclusion with Respect to Claims 1-9

Because the combination of Edevold and Rossow fails to disclose each and every limitation of claim 1 and/or because Edevold and Rossow are not analogous art, it is respectfully submitted that the obviousness rejection of claim 1 over Edevold and Rossow is in error and should be withdrawn.

The Examiner also rejected claims 2-9 over Edevold and Rossow. Claims 2-9 depend from and incorporate all of the limitations of claim 1. Accordingly, for at least the same reasons as those set forth above in connection with claim 1, it is respectfully submitted that the rejection of claims 2-9 over Edevold and Rossow are in error and should be withdrawn.

Claim 7 includes additional patentable limitations that are not disclosed in the prior

art. For example, claim 7 includes the limitation that the inverter of claim 1 includes a variable frequency drive. In the Final Office Action at page 5, the Examiner stated that Edevold teaches the inverter having switches utilizing a half bridge topology to output a precise AC output to the load (inherent that it would use a variable frequency drive). Applicants respectfully disagree with the Examiner's contention. As mentioned above, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. However, the Examiner has not provided a rationale as to how a person of ordinary skill in the art would conclude that it is inherent that "switches utilizing a half bridge topology to output a precise AC output to the load" would use a variable frequency drive.

Therefore, it is respectfully submitted that for these additional reasons, the obviousness rejection of claim 7 is in error and should be withdrawn.

2. Claims 10-16

The Examiner rejected claims 10-16 over a combination of Edevold and Rossow. For the reasons discussed above, Edevold and Rossow are not analogous art. Therefore, for at least that reason, it is respectfully submitted that the obviousness rejection of claims 10-16 is improper under MPEP 2141.01(a) and should be withdrawn.

In addition, claim 10 is directed to an arrangement for providing a visible display corresponding to the operation of a system for providing alternative sources of power to an electrical device. The system has a plurality of states including a utility power bypass state and an inverter power state. The arrangement comprises a plurality of indicators and a

processing circuit. The processing circuit is operable to: cause a first visible configuration of the plurality of indicators when the arrangement is in the inverter power state; cause a second visible configuration of the plurality of indicators when the arrangement is in the utility power bypass state; cause a third visible configuration of the plurality of indicators when the arrangement is in transition between the inverter power state and the utility power bypass state.

Thus, similar to claim 1, claim 10 includes the limitation of "caus[ing] a third visible configuration of the plurality of indicators when the arrangement is in transition between the inverter power state and the utility power bypass state." Therefore, the argument presented above for the patentability of claim 1 is applicable to claim 10. For example, while Rossow has been cited to provide the teaching of indicators, no rationale or evidence has been provided to show why or how it is inherent from the combination of Edevold and Rossow to provide a visible indication of when the arrangement is in transition between the inverter power state and the utility power bypass state. Even though Rossow discloses the use of indicators, there is no hint or suggestion of using a separate visible configuration of a plurälit of indicators to indicate a transition between the inverter power state and the utility power bypass state.

Therefore, for the same reasons as given above for claim 1, it is respectfully submitted that the obviousness rejection of claim 10 over the combination of Edevold and Rossow should be withdrawn.

The Examiner also rejected claims 11-16 over Edevold and Rossow. Claims 11-16 depend from and incorporate all of the limitations of claim 10. Accordingly, for at least the same reasons as those set forth above in connection with claim 10, it is respectfully submitted

that the rejection of claims 11-16 over Edevold and Rossow are in error and should be withdrawn.

3. Claims 17-20

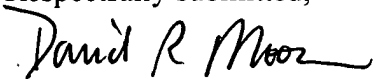
The Examiner rejected claims 17-20 over a combination of Edevold and Rossow. For the reasons discussed above, Edevold and Rossow are not analogous art. Therefore, for at least that reason, it is respectfully submitted that the obviousness rejection of claims 17-20 is improper under MPEP 2141.01(a) and should be withdrawn.

The Examiner also rejected claims 18-20 over Edevold and Rossow. Claims 18-20 depend from and incorporate all of the limitations of claim 17. Accordingly, for at least the same reasons as those set forth above in connection with claim 17, it is respectfully submitted that the rejection of claims 18-20 over Edevold and Rossow are in error and should be withdrawn.

(8) CONCLUSION

For all of the foregoing reasons, claims 1-20 are not obvious over US Patent No. 6,292379 to Edevold et al. and US Patent No. 6,923,285 to Rossow et al. As a consequence, the Board of Appeals is respectfully requested to reverse the rejection of these claims.

Respectfully submitted,



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CLAIM APPENDIX

Claim 1. (Original) An arrangement for use in providing power to an electrical device, the arrangement comprising:

a) an inverter generating an inverter output;

b) a first switch having an open position and a closed position, the first switch operably coupled to connect the inverter to the electrical device when the first switch is in the closed position;

c) a second switch having an open position and a closed position, the second switch operably coupled to connect a utility power line source to the electrical device when the second switch is in the closed position;

d) a bypass controller operable to cause a first transition sequence in which the first switch changes to the open position and subsequently the second switch changes to the closed position, the bypass controller further operable to:

cause continuous actuation of a first indicator when the first switch is in the closed position;

cause continuous actuation of a second indicator when the second switch is in the closed position; and

cause intermittent actuation of the second indicator during at least a portion of the first transition sequence.

2. (Original) The arrangement of claim 1, wherein the first and second indicators are light emitting diodes.

3. (Original) The arrangement of claim 1, wherein the bypass controller causes continuous actuation of the first indicator at all times in which the first switch is in the closed position.

4. (Original) The arrangement of claim 3, wherein the bypass controller causes intermittent actuation of the second indicator only when the first switch is in the open position.

5. (Original) The arrangement of claim 1, wherein the bypass controller is further operable to cause the inverter to discontinue generating the inverter output during the first transition sequence and before causing the first switch to change to the open position.

6. (Original) The arrangement of claim 1, wherein the first transition sequence includes a portion in which the bypass controller obtains information regarding operation of the arrangement while the first switch is in the open position and the second switch is in the open position.

7. (Original) The arrangement of claim 1, wherein the inverter includes a variable frequency drive.

8. (Original) The arrangement of claim 1, wherein the bypass controller is operable to initiate the first transition sequence responsive to a signal indicative of an overcurrent condition in the inverter.

9. (Original) The arrangement of claim 1, wherein the bypass controller is operable to initiate the first transition sequence responsive to a signal generated by actuation of a user input.

10. (Original) An arrangement for providing a visible display corresponding to the operation of a system for providing alternative sources of power to an electrical device, the system having a plurality of states including a utility power bypass state and an inverter power state, the arrangement comprising a plurality of indicators and a processing circuit, the processing circuit operable to:

cause a first visible configuration of the plurality of indicators when the arrangement is in the inverter power state;

cause a second visible configuration of the plurality of indicators when the arrangement is in the utility power bypass state;

cause a third visible configuration of the plurality of indicators when the arrangement at least a portion of the time when the arrangement is in transition between the inverter power state and the utility power bypass state.

11. (Original) The arrangement of claim 10 further comprising indicia proximate one or more of the plurality of indicators, and wherein the first visible configuration includes a first indicator in an actuated state, the first indicator disposed proximate indicia corresponding to the inverter power state.

12. (Original) The arrangement of claim 11 wherein the second visible configuration includes a second indicator in an actuated state, the second indicator disposed proximate indicia corresponding to the utility power bypass state.

13. (Original) The arrangement of claim 10 wherein the third visible configuration includes an intermittently actuated indicator.

14. (Original) The arrangement of claim 11 wherein the third visible configuration includes the first indicator in an intermittently actuated state.

15. (Original) The arrangement of claim 12 wherein the third visible configuration includes the second indicator in an intermittently actuated state.

16. (Original) The arrangement of claim 10 wherein the plurality of indicators comprise a plurality of light emitting diodes.

17. (Original) A bypass circuit for use in an arrangement for use in providing power to an electrical device, the arrangement comprising an inverter generating an inverter output, the bypass circuit comprising:

a first switch having an open position and a closed position, the first switch operably coupled to connect the inverter to the electrical device when the first switch is in the closed position,

a second switch having an open position and a closed position, the second switch operably coupled to connect a utility power line source to the electrical device when the second switch is in the closed position,

a processing circuit operable to cause a first transition sequence in which the first switch changes to the open position and subsequently the second switch changes to the closed position, the bypass controller further operable to provide a signal to the inverter to cause the inverter to cease providing output prior to first switch changing to the open position.

18. (Original) The bypass circuit of claim 17 wherein the first switch comprises a relay.

19. (Original) The bypass circuit of claim 17 further comprising a plurality of indicators, and wherein the processing circuit is operable to:

cause a first visible configuration of the plurality of indicators when the first switch is in the closed position; and

cause a second visible configuration of the plurality of indicators when the second switch is in the closed position.

20. (Original) The bypass circuit of claim 17 wherein the processing circuit is further operable to cause a second transition sequence in which the second switch changes to the open position and subsequently the first switch changes to the closed position, the bypass controller further operable to provide a signal to the inverter to cause the inverter to start providing output after the first switch changing to the closed position.

EVIDENCE APPENDIX

This section is empty

[NONE]

RELATED PROCEEDINGS APPENDIX

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[NONE]